

CEREAL RUST BULLETIN

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Issued by:

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- Wheat leaf rust is severe in plots, but light in fields throughout much of the southern U.S.
- Wheat stripe rust is still active in northern Arkansas.
- Oat stem rust overwintering sites were found in the southern U.S.

Most of the winter-sown small grain crop is in good condition throughout the United States. By early May, harvest had commenced in southern Texas. Most of the crop in the central plains is near normal crop maturity. Throughout much of the spring grain growing-area, the water-soaked soils and cold temperatures have delayed field work.

Wheat stem rust. There have been no new reports of wheat stem rust since the last bulletin.

Wheat leaf rust. In early May, wheat leaf rust was found in light amounts in fields and was severe on susceptible cultivars in research plots from north central Oklahoma to central Alabama (Fig. 1). In some wheat fields in central Texas, 60% rust severities were observed, but with the crop rapidly maturing, further infection will be limited. The past two weeks have been conducive for rust development with adequate moisture and warmer temperatures. In late April, no wheat leaf rust had been reported in the state of Kansas.

In early May, from central Louisiana to central Alabama, 60% leaf rust severities were observed on susceptible cultivars and trace levels of infection on resistant cultivars in nursery plots. In some specific locations, i.e., east central Alabama, where conditions were drier, leaf rust severities on the susceptible cultivars were 10-20%. During the last week in April, 10% leaf rust severities were observed in northeastern Arkansas wheat plots. Leaf rust is prevalent throughout the winter wheat area of the U.S. and will provide inoculum for the northern wheat growing area.

In early May, 75% leaf rust severities were reported on wheat in fields in the Sacramento Valley of California. Rust development has been less than normal in California this year because of the dry conditions.



From leaf rust collections made in February and March, the following races were identified: Texas - MBDS and MGDS; Louisiana - MBDS and TNRJ; Arkansas - MBDS and TBDS. Races MBDS, MGDS and TBDS are virulent to Jagger which has *Lr17*. TNRJ is virulent to cultivars with *Lr9*.

Wheat stripe rust. During the first week in May, wheat stripe rust infections were still active on some cultivars in plots in northern Texas and trace levels of infection were found in plots in Oklahoma.

By the first week in May, stripe rust development had slowed in southern Arkansas but in the northern part of the state, rust infections were still viable. The epidemic is largely completed in Arkansas. This year in Arkansas stripe rust was not as severe as in 2000 since the cultivar CK 9663 (which comprises half of the acreage) was more resistant in 2002. This year more stripe rust overwintering sites occurred further east in the U.S. than last year, when overwintering sites were more concentrated in the Texas and Oklahoma area. Where stripe rust spores are deposited in late fall and create overwintering sites is very critical as to where stripe rust will develop the next year.

In early May, wheat stripe rust was severe and increasing in northwestern Washington plots and fields. In eastern Washington, stripe rust was very light. In late April, stripe rust was reported in the Corvallis, Oregon area.

Oat stem rust. During the first week in May, overwintering foci of oat stem rust were found in central Louisiana, northeastern Louisiana and west central Mississippi varietal plots. Severities in the middle of the foci ranged from 20-60%, while a meter from the center severities were trace-1%. In late April, traces of oat stem rust were found in central Texas plots. No rust infection was observed in oat fields in these areas.

Oat crown rust. During the first week in May, 60% severities were observed in varietal plots in central Louisiana, east central Mississippi and traces in west central Alabama. In fields in central Louisiana 20% severities were observed. In early May, trace amounts of crown rust were found in varietal plots in north central Texas.

Buckthorn. The buds on buckthorn, the alternate host for oat crown rust, are still just beginning to break in the buckthorn nursery at St. Paul, Minnesota. This is the same development stage as stated two weeks ago. This is much later than normal, due to the prolonged cool temperatures in April and May.

Barley stem rust. There have been no reports of barley stem rust this year.

Barley leaf rust. In late April 5-40% leaf rust severities were observed on barley lines in nurseries in eastern Virginia. In central Texas 80% severities were reported in barley plots.

Stripe rust on barley. There have been no reports of stripe rust on barley this year.

Rye rusts. During the first week in May, 10% severities were observed on winter rye in fields in west central Georgia.



Fig. 1. Leaf rust severities in wheat fields - May 7, 2002

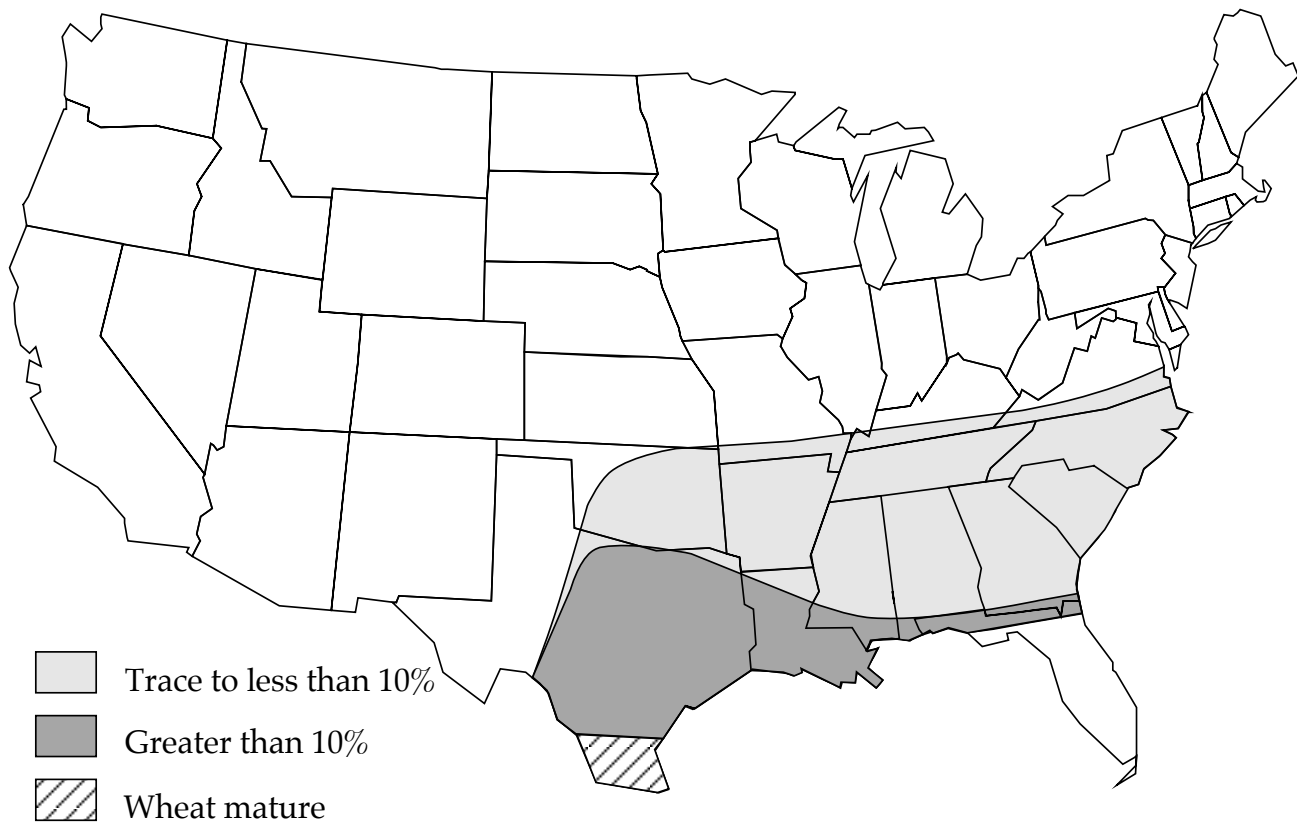


Fig. 2. Stripe rust severities in wheat fields - May 7, 2002

